1.3 Finding Limits from Graphs
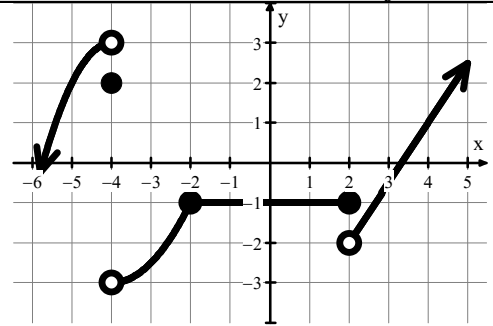
Calculus   Name: _____

CA #2

For 1-2, give the value of each statement. If the value does not exist, write "*does not exist*" or "*undefined.*"
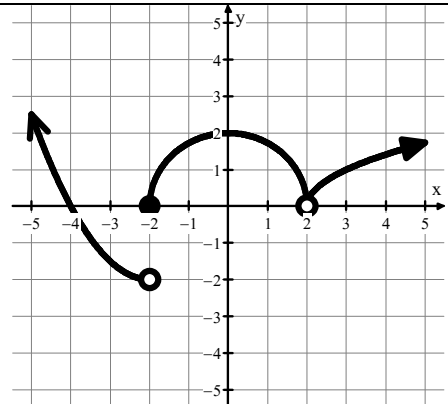
1.

a. $\lim\limits_{x \to -4} f(x) =$ b. $f(-4) =$ c. $\lim\limits_{x \to -4^-} f(x) =$

d. $\lim\limits_{x \to -4^+} f(x) =$ e. $f(2) =$ f. $\lim\limits_{x \to 2} f(x) =$

g. $\lim\limits_{x \to -2} f(x) =$ h. $\lim\limits_{x \to 2^-} f(x) =$ i. $\lim\limits_{x \to 2^+} f(x) =$

2.

a. $\lim\limits_{x \to 2^-} f(x) =$ b. $f(2) =$ c. $\lim\limits_{x \to -2^-} f(x) =$

d. $\lim\limits_{x \to 2} f(x) =$ e. $f(0) =$ f. $\lim\limits_{x \to -2} f(x) =$

g. $\lim\limits_{x \to -2^+} f(x) =$ h. $f(-2) =$

3. Sketch a graph of a function f that satisfies all of the following conditions.

a. $f(1) = 2$

b. $\lim\limits_{x \to 1^-} f(x) = 4$

c. $\lim\limits_{x \to 1^+} f(x) = -3$

d. f is increasing on $x < -4$

e. $\lim\limits_{x \to -4^-} f(x) < \lim\limits_{x \to -4^+} f(x)$
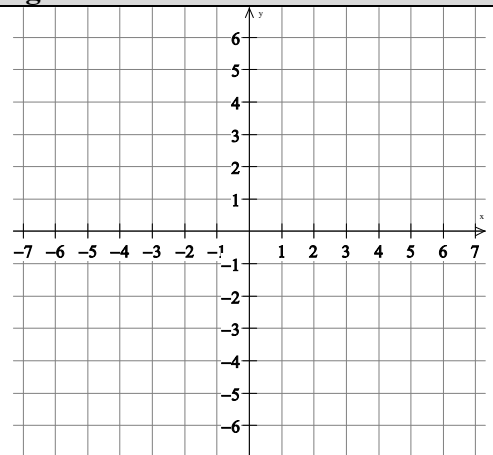
1a. DNE	b. 2	c. 3	d. −3	e. −1	f. DNE	g. −1	h. −1	i. −2
2a. 0	b. DNE	c. −2	d. 0	e. 2	f. DNE	g. 0	h. 0	

3. One possible graph:

Double check that each condition is satisfied with your
graph and it passes the vertical line test.